SONY

HD 3CCD Color Video Camera

BRC-H700

The High-definition, All-in-one, Robotic Color Video Camera – For Remote Shooting with Astounding Video Quality

Sony introduces the new BRC-H700 HD Color Video Camera with three 1/3-inch type HD CCDs boasting 1,070,000 effective pixels each for high resolution and high sensitivity. The BRC-H700 is an all-in-one compact robotic color video camera system, which achieves high accuracy and wide-range Pan/Tilt/Zoom performance without complicated cable connections and installation.

With the optional Sony RM-BR300 Remote Control Unit, featuring an ergonomically designed joystick, the BRC-H700 can be precisely controlled via the camera's control interface (RS-422 or RS-232C) using the VISCA™ protocol.

When using the optional BRU-H700 HD Optical Multiplex Unit and optional BRBK-H700 HD Optical Multiplex Card in the camera, this system allows users to control the cameras and transmit digital image data and audio signals from a distance of up to 1,000 meters away via optional CCFC-M100HG Optical Fiber Cables[*1]*.*
In this configuration, up to seven cameras can be controlled with a single RM-BR300 by daisy chaining the BRU-H700 HD Optical Multiplex Units via the control interface using VISCA protocol.

The BRC-H700 comes equipped with a card slot that accepts a variety of optional interface cards, making it compatible with a number of different systems. The interfaces supported with these optional cards include HD-SDI, SD/SD-SDI (down converted), i.LINK™[*2] *for use with HDV™ systems, and computer XGA. Other features include an "Image Flip" function for installation flexibility and up to 16 presets for operational ease of use.*

With these exceptional features, the BRC-H700 is ideal for a wide range of high-definition shooting applications. It is also highly suitable for remote shooting in which images are displayed on large-screen displays, such as in houses of worship, in auditoriums of teaching hospitals, in corporate boardrooms, and at sporting events, trade shows, and concerts. The BRC-H700 can also be used for distance-learning applications in which clear, high-definition images are required, for example, when presenting on chalkboards or white boards. Furthermore, it is an excellent choice for broadcast applications, such as the recording of television programs or as a weather camera. For these and many more applications, make the BRC-H700 your high-definition camera of choice.

*1 Up to 10 CCFC-M100HG Optical Fiber Cables (100 m long) can be connected using the supplied extension plugs.

*2 i.LINK is a trademark of Sony Corporation used only to designate that a product contains an IEEE 1394 connector. Not all products with an i.LINK connector will necessarily communicate with each other. For information on compatibility, operating conditions, and proper connection, please refer to the documentation supplied with any device with an i.LINK connector. For information on devices that include an i.LINK connection, please contact your nearest Sony office.

MAIN FEATURES

Superb Picture Quality – Three 1.07 Megapixel HD CCDs

The BRC-H700 incorporates three 1/3-inch type HD CCD sensors with a total of 1,070,000 effective pixels each, resulting in outstanding picture quality with high resolution. It also delivers accurate color reproduction, and is ideal in low-light shooting environments.

High-performance Pan/Tilt/Zoom Mechanism

The BRC-H700 covers a wide shooting range with its highly accurate Pan/Tilt mechanism. It has a very wide pan range of 340 degrees and a tilt range of 120 degrees. Both pan and tilt speeds are variable within the range of 0.25 to 60 degrees per second. This enables the BRC-H700 to capture not only fast-moving objects, but also slow-moving objects without rocking vibration. What's more, the BRC-H700 incorporates a 12x optical auto-focus zoom lens, allowing for a zoom capability of up to 48x when used in combination with its 4x digital zoom.

RS-232C/RS-422 Remote Control (VISCA protocol)

The BRC-H700 can be controlled by external devices such as the optional RM-BR300 Remote Control Unit thanks to Sony's well-known VISCA protocol. All local controls such as Pan/Tilt/Zoom, camera settings, and sixteen presets can be easily accessed, and up to seven cameras can be daisy-chained and controlled by a single RM-BR300 Remote Control Unit.

Versatile Video Outputs

The BRC-H700 comes standard with a D-sub 15-pin RGB/YPbPr interface. The unit can also accept a range of versatile optional interface cards that allow for flexible analog and digital system configurations. Choose from the following interface cards to configure a solution that meets your individual requirements:

- HFBK-HD1[*3] : HD-SDI, HD Analog RGB/Component
- HFBK-SD1[*3] : Down Converted Analog RGB, Analog Component, Analog Composite, SD-SDI
- HFBK-XG1[*3] : WXGA, XGA (Letter Box, Crop), VGA (Letter Box, Crop)
- HFBK-TS1[*3] : i.LINK for use with HDV systems

Thanks to these convenient option cards, the BRC-H700 truly functions as an all-in-one, compact robotic camera.

*3: Can be installed in both the BRC-H700 and BRU-H700

BRC-H700 rear panel with the optional BRBK-H700

BRU-H700 rear panel with the optional HFBK-HD1/HFBK-SD1

OTHERS CONVENIENT FEATURES

Flexible Installation – Ceiling Mount or Flat Surface

Because the BRC-H700 has an "Image Flip" function, the unit can either be mounted on a ceiling using the supplied ceiling mount kit or placed on a flat surface to meet your installation and space requirements.

Sixteen Presets

Various camera settings such as Pan/Tilt/Zoom and focus can be configured for up to sixteen presets per camera.

Multi-function IR Remote Commander™ Unit

Basic camera settings, such as the Pan/Tilt/Zoom functions and six-preset patterns, can be controlled from the supplied IR Remote Commander unit.

BRC-H700 and Supplied IR Remote Commander Unit

Easy-to-use and Ergonomically Designed Remote Control Unit (RM-BR300)

All camera settings, including the Pan/Tilt/Zoom functions and sixteen-preset patterns, can be controlled from the optional RM-BR300 Remote Control Unit. The ergonomic joystick design and feature-rich control panel provide superb operability in various remote-shooting applications.

Optical Multiplex Unit (BRU-H700)

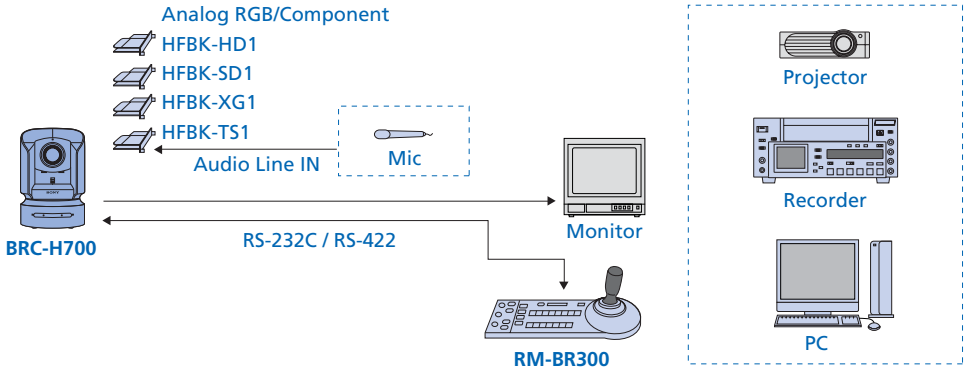
Uncompressed digital data including external sync, camera control and audio signals can be transmitted via the optional BRU-H700 HD Optical Multiplex Unit with the BRBK-H700 HD Optical Multiplex Card installed. With only a single cable connection between the camera and the HD Optical Multiplex Unit, the system is extremely easy to install. The maximum cable length between these units is 1,000 meters – allowing multiple cameras to be located virtually anywhere you want. What's more, the BRU-H700 HD Optical Multiplex Unit is equipped with two built-in card slots, each identical to the one found in the BRC-H700 camera, allowing for flexible analog and digital system configurations.

BRU-H700 HD Optical Multiplex Unit

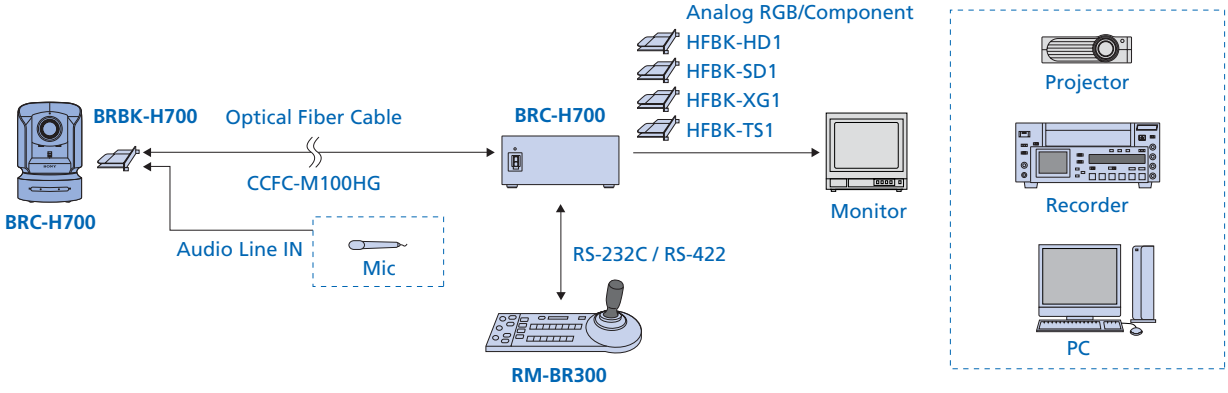
RM-BR300 Control Panel

SYSTEM CONFIGURATION

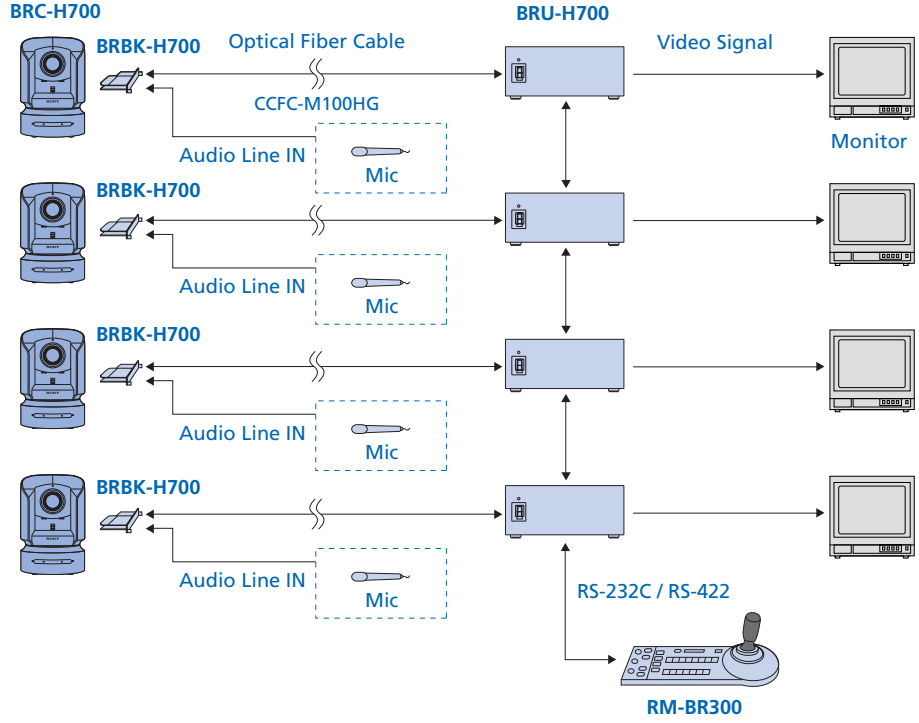
Short-distance Operation



Long-distance Operation



Multiple Camera Operation From a Remote Location



OPTIONAL ACCESSORIES

BRBK-H700
HD Optical Multiplex Card
With Audio IN (RCA pin)

HFBK-HD1
HD-SDI Interface Card
HD-SDI, HD Analog RGB/
Component

HFBK-SD1
SDI Interface Card
Down Converted SD-SDI, Analog
RGB/Component/S-Video/Composite

HFBK-XG1
XGA Interface Card
WXGA XGA (Letter Box, Crop),
VGA (Letter Box, Crop)

RM-BR300
Remote Control Unit

BRU-H700
HD Optical Multiplex Unit

CCFC-M100HG
Optical Fiber Cable
2-core Multi-mode Optical Fiber
Cable (100 m long), Extension Plug
Included

CCMC-9DS
RGB/Component, Y/C Cable
(9-pin D-sub)

CCXC-9DBS
RGB/Component, VBS Cable
(9-pin D-sub)

HFBK-TS1
i.Link (HDV) Card
With Audio IN (RCA pin)

REAR PANEL LAYOUT

BRC-H700 Rear Panel

RM-BR300 Rear Panel

BRU-H700 Rear Panel

SPECIFICATIONS

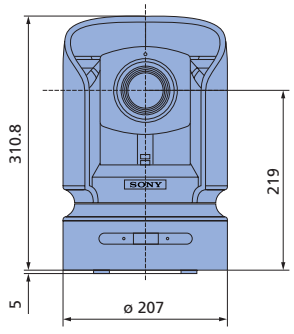
BRC-H700 HD 3CCD Color Video Camera	
Image device	Three 1/3 type IT CCDs
Total picture elements	Approx. 1.12 Megapixels
Effective picture elements	Approx. 1.07 Megapixels
Signal systems	1080/59.94i, 1080/50i (switchable)
Lens	12x optical zoom, 48x with digital zoom Carl Seiss Vario-Sonnar T*®
Focal length	f=4.5 to 54.0 mm (F1.6 to F2.8)
Minimum object distance	800 mm (Tele end)
Horizontal viewing angle without Image Stabilization	5.5 degrees (Tele) to 60.3 degrees (Wide)
Vertical viewing angle without Image Stabilization	3.1 degrees (Tele) to 36.2 degrees (Wide)
Focus system	Auto/Manual
Pan/Tilt angle	-170 to +170 degrees (Pan), -30 to +90 degrees (Tilt)
Pan/Tilt speed	0.25 to 60 degrees/s (Pan/Tilt)
Minimun illumination	6 lx (50 IRE, F1.6)
S/N ratio	50 dB
Shutter speed	1/10,000 to 1/59.94 (1/50) s
Gain	Auto/Manual (0 to 18 dB and Hyper Gain)
White balance	Auto, Indoor, Outdoor, One-push WB, Manual
Optical Image Stabilizer	On/Off
Image flip	On/Off
ND filter	Off/ND1/ND2
Preset positioning	16 positions
Video output (Built-in)	Analog RGB, Analog Y/Pb/Pr
Video output (With optional card(s))	HFBK-HD1 : HD-SDI, HFBK-SD1 : Down converted SD (RGB, Y/Cb/Cr, Y/C, Composite, SDI x2) HFBK-XG1 : WXGA, XGA, VGA, HFBK-TS1 :HDV
Camera control interface	RS-232C/RS-422 (VISCA protocol)
Backlight compensation	On/Off
Operating temperature	0 to 40 degrees (32 to 104 °F)
Storage temperature	-20 to 60 degrees (-4 to 140 °F)
Power requirements	DC 12 V
Power consumption	Max. 24 W (without optional card)
Dimensions (Diameter x H)	207 x 315.8 mm (8 1/4 x 12 1/2 inches)
Mass	4.5 kg (9 lb 15 oz)
Supplied accessories	IR Remote Commander Unit (1), RS-422 terminal block connector (1), AC adaptor (1), AC power cable (1), Ceiling bracket (2), Wire rope, Mounting screws, Operating instructions (1)

BRU-H700 HD Optical Multiplex Unit	
Optical fiber connector	Multi mode, LC-type Fiber Connector
Video output (Built-in)	Analog RGB, Analog Y/Pb/Pr
Video output (With optional card : slot x2)	HFBK-HD1 : HD-SDI, HFBK-SD1 : Down converted SD (RGB, Y/Cb/Cr, Y/C, Composite, SDI x2) HFBK-XG1 : WXGA, XGA, VGA, HFBK-TS1 : HDV
Camera control interface	RS-232C/RS-422 (VISCA protocol)
Sync systems	Internal/External
Multiple connection	Up to 7 Units
Operating temperature	0 to 40 degrees (32 to 104 °F)
Storage temperature	-20 to 60 degrees (-4 to 140 °F)
Power requirements	59.94 i : AC 100 to 120 V (50/60 Hz) 50 i : AC 220 to 240 V (50/60 Hz)
Power consumption	Max. 10 W (without optional cards)
Dimentions (WxHxD)	210 (W) x 240 (D) x 86 (H) mm (8 3/8 x 9 1/2 x 3 1/2 inches)
Mass	2.7 kg (5 1b 15 oz)
Supplied accessories	AC power cable (1), RS-422 terminal block connector (1), RS-232C cable (1), Operating instructions (1)

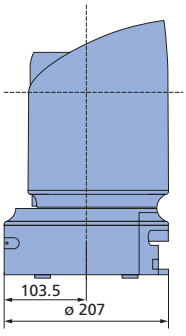
RM-BR300 Remote Control Unit	
Camera control interface	RS-232C/RS-422 (VISCA protocol)
External control	Contact closure
Power requirements	DC 10.8 to 13.2 V
Power consumption	2.4 W
Dimensions (WxHxD)	391.3 x 185 x 145.9 mm (15 1/2 x 7 3/8 x 5 3/4 inches)
Mass	950 g (2 lb 1 oz)
Supplied accessories	AC adaptor (1), AC power cable (1), RS-232C cable (3 m, 8-pin Mini Din) (1), Terminal connector (2), Operating instructions (1)

BRC-H700 Dimensions

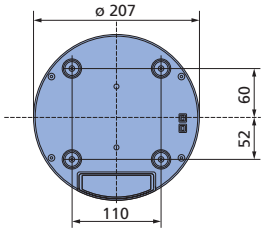
FRONT



SIDE



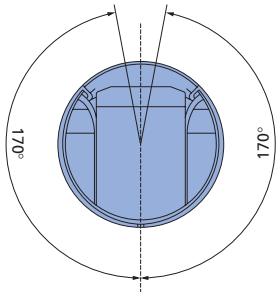
BOTTOM



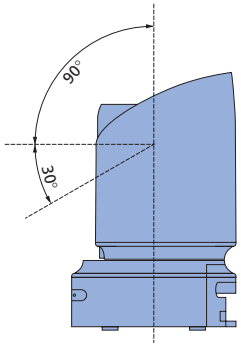
(Unit: mm)

BRC-H700 Pan/Tilt Range

PAN RANGE



TILT RANGE



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